

CLAIMS

1. A method for transforming a monocotyledon,
comprising contacting a cultured tissue of said
monocotyledon during dedifferentiation thereof obtained
5 by culturing an explant on a dedifferentiation-inducing
medium for less than 7 days with a bacterium belonging to
the genus *Agrobacterium* containing a super binary vector
having the virulence region of Ti plasmid pTiBo542
contained in *Agrobacterium tumefaciens* A281, left and
10 right border sequences of T-DNA of a Ti plasmid or an Ri
plasmid of a bacterium belonging to the genus
Agrobacterium, and a desired gene located between said
left and right border sequences.
2. The method according to claim 1, wherein said
15 virulent region in said super binary vector comprises
VirB and *VirG* regions.
3. The method according to claim 1, wherein said
explant is an immature tissue.
4. The method according to claim 3, wherein said
20 immature tissue is an immature embryo.
5. The method according to any one of claims 1-4,
wherein said monocotyledon is a plant belonging to the
family Gramineae.
6. The method according to claim 5, wherein said
25 monocotyledon is rice.
7. The method according to any one of claims 1-4,
wherein said bacterium belonging to the genus

Agrobacterium is *Agrobacterium tumefaciens*.

8. The method according to any one of claims 1-4,
wherein said cultured tissue is transformed by contact
with a suspension of said *Agrobacterium* having a cell
5 population of 10^6 to 10^{11} cells/ml.

9. The method according to any one of claims 1-4,
further comprising a step of selecting a transformed cell
or a transformed tissue during dedifferentiation or in a
dedifferentiated state, after subjecting said cultured
10 tissue to transformation.

10. The method according to any one of claims 1-4,
wherein said cultured tissue has the ability to
regenerate a normal plant.

11. The method according to claim 8, wherein said
15 cultured tissue is contacted with said suspension of
Agrobacterium for 3-10 minutes, and then cultured on a
solid medium for several days together with said
Agrobacterium.

12. The method according to any one of claims 1-4,
20 wherein said virulence region is originated from a super
binary vector pTOK162.

13. A method for transforming a monocotyledon,
comprising contacting a cultured tissue of said
monocotyledon during dedifferentiation thereof obtained
25 by culturing an explant derived from an immature tissue
on a dedifferentiation-inducing medium for less than 7
days with a bacterium belonging to the genus

Agrobacterium containing a desired gene and containing a vector having the virulence region of Ti plasmid contained in *Agrobacterium tumefaciens*.

14. The method according to claim 13, wherein said
5 immature tissue is an immature embryo.

15. The method according to claim 13 or 14, wherein said monocotyledon is a plant belonging to the family Gramineae.

16. The method according to claim 15, wherein said
10 monocotyledon is rice.